## **Proper Care and Planting of Young Trees**

#### Selection

The two important selection criteria when purchasing a young tree are the type of tree and its condition.

#### Type of Tree

Make sure the tree is appropriate for its location. See the companion brochure "Proper Tree Selection" in this series. Otherwise, you may waste many hours and dollars trying to get the tree to grow in conditions that are contrary to its nature.

#### Condition

Inspect the young tree carefully in the nursery or garden center before purchase. Look for signs that the tree may be in less than optimal condition, such as broken branches, injury to bark, damage from insects or disease, or lack of new growth. If



trees before burchase

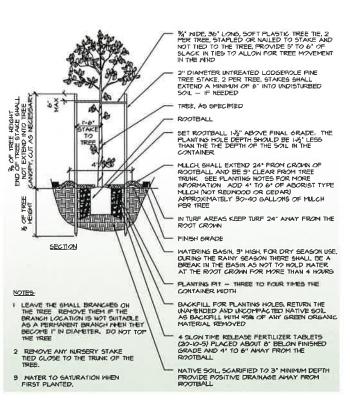
possible, tip the tree out of the pot or pull back the burlap to ensure there are no girdling roots wrapped around the root ball. Look at the structure of the young tree. Unless a multi-stemmed specimen is specifically desired, select a tree that has a single, straight trunk with lateral branches distributed evenly around and up the trunk.

#### **Planting**

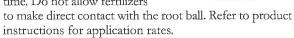
Proper planting will provide a young tree with optimal conditions for healthy establishment.

- The planting hole should be 2 to 3 times as wide as the root ball and no deeper than the root ball. Scarify the sides and bottom of the hole.
- Remove any soil around the trunk to expose the root flare. For trees in pots, use your fingers or a large nail to gently loosen up roots that are tightly embedded in the potting soil so they will grow outward and not around the root ball. For trees wrapped in burlap, do not remove the burlap. After the tree is properly positioned in the hole, remove or fold back the burlap to expose at least half of the root ball.
- Place the tree in the hole with the top of the root flare 1" to  $1\frac{1}{2}$ " above the soil line. The bottom of the root ball should sit on a mound of undisturbed or well compacted soil to prevent the tree from later settling too deeply in the hole. The handle of a shovel or a board laid across the hole can help ensure the planting depth is correct. If the hole is too deep, add native soil to the proper depth and compact it firmly before planting the tree.

- Refill the planting hole with the excavated native soil, removing any large stones or other debris. Do not compact the soil. Provide positive drainage away from the root crown.
- You may form a water reservoir around the interior perimeter of the planting area, provided water will not become trapped for more than several hours.
- Apply 3" to 4" of wood chip mulch extending at least 24" from the crown of the root ball, keeping it 3" away from the trunk. In lawn areas, keep turf at least 27" away from the trunk to protect against injury from mowers and trimmers.
- Remove any nursery stakes tied to the tree. If needed, install new stakes made of 2" diameter untreated wood, two per tree. The stakes should be at least as long as the tree, with one third of the stake in the ground. The exposed portion of the stake should not extend into the tree canopy. Trim the stake if
- Loop two <sup>3</sup>/<sub>4</sub>" wide soft plastic tree ties around the tree about two thirds of the way up the trunk, and staple or nail both ends of a tie to each stake. Do not tie them around the tree. Make the ties long enough to leave 5" to 6" of slack so the



 Most nursery grown trees will suffer some root loss when they are planted, and they may benefit from receiving some slow release fertilizer and/or mycorrhizal fungi mixed into the soil at planting time. Do not allow fertilizers



In general, trees should not be not pruned or topped at planting time because they need their leaves and tip growth to support new root production. Some fruit trees may be pruned when they are planted, depending on the time of year and the condition of the tree. Get some guidance on pruning from the nursery or garden center when you purchase the fruit tree.

#### Pruning

Proper pruning during a tree's early years will establish a structurally sound form for a healthier, safer, and more attractive tree. By pruning trees when they are young, you can reduce the need for corrective pruning later. Pruning cuts made when a tree is young are usually smaller than those needed to shape a mature tree, and thus cause less damage. In general, wait at least one year after planting before pruning.

Always use a clean sharp tool for pruning to avoid tearing bark or introducing disease. Use bypass blade hand pruners for cuts 1/2" in diameter and less. Use lopping shears or a pruning saw for larger cuts. Make cuts just outside the branch collar (the slightly thickened ring of bark at the point where the branch joins the trunk).

Select a single, straight leader as the trunk. Do not cut the top of this leader. Leaving multiple leaders can lead to a weak trunk that is prone to splitting as the tree matures.

Begin structural pruning in the second or third year so the mature tree will have branches evenly spaced around and up the trunk. Branches should be spaced about 12" to 18" apart. Identify the branches that will be permanent and begin pruning out the others, but do not remove more than one third to one half of the trees leaves at a time. It may take several years before the final structure is accomplished. Remove branches that have a narrow angle of attachment to the trunk, because these may become weak over time. Where needed, cut off lower branches to allow people or vehicles to pass underneath.

## Water Young trees require regular moisture to overcome the transplant

#### stress and to establish new roots. However, too much water can be just as damaging as not enough. Apply water to the roots and expand the watering area as the roots grow further out from the trunk.

Fewer, deep watering applications are better than many, shallow applications. Deep watering penetrates more deeply into the root zone, and the soil surface can dry out enough to prevent development of molds and fungi.

Never allow water to pool around the trunk for more than several hours. Provide a break in the watering reservoir during the winter to allow drainage during frequent rain.

Apply water slowly to prevent runoff.

Adjust automatic irrigation as the seasons change to prevent over and under watering.

Ensure that irrigation to other nearby plants and lawns is not causing over watering of the tree.

The amount of water to apply will vary depending on the type of tree, soil conditions, and the climate. Monitor young trees carefully, especially in the warm weather, for signs of drought stress — increase water accordingly.

#### Mulch

Maintain a 3" to 4" layer of wood mulch around young trees for at least three years to preserve soil moisture, improve soil structure, suppress weeds and grass, and eliminate the need for mowers and trimmers near the tree. Always keep a 3" area clear next to the trunk.

#### **Fertilizer**

Test the soil before planting a tree to ensure it has adequate nutrients. Mature trees generally do not need supplemental fertilizer unless the soil is deficient. Young trees, however, grow rapidly and may benefit from some supplemental nitrogen during the first several years. Use slow release fertilizer applied to the surface above the roots and water it in well to move it into the root zone. A local nursery or garden center can use the soil test results to determine how much fertilizer to apply.

#### Monitoring

Monitor young trees regularly for signs of disease, damage, drought, or poor vigor. Check your tree every month or two and address issues as soon as they appear. Bring leaves, twigs, and pictures with you to help nursery or garden center staff with a diagnosis.

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**Arborists** are tree care professionals who can help with the proper selection, planting, and care of trees. We recommend choosing Arborists Certified by ISA (International Society of Arborists).

Master Gardeners are lay people who are trained to recognize many tree related issues and make general recommendations. The Master Gardeners are available through the University of California Cooperative Extension. More information about the Master Gardener Program in Placer County can be found at ceplacer.ucdavis.edu/Master\_Gardener803/

**Nursery Employees** often have training in growing conditions and species selection for trees.

Some **Lawn Care Professionals** or **Gardeners** may also have training and experience in tree selection and care.

### Where Can You Get Advice About Your Young Trees?

#### **Useful Web Sites:**

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www.ISA-arbor.org and www.treesaregood.com

These sites are maintained by ISA and provide information about trees, tree care, and contact information for local certified arborists.

www.arborday.org/trees/righttreeandplace

The web site of the National Arbor Day Foundation provides information about tree selection and tree care.

www.ufei.calpoly.edu and selectree.calpoly.edu/

The web site of the Urban Forest Ecosystems Institute at Cal Poly San Luis Obispo has tools, such as SelecTree, to help homeowners with tree selections and identification and diagnosis of diseases and pests that attack California native tree species.

#### www.placertree.org

Placer Tree Partners is a citizen based organization focused on increasing public awareness and appreciation of trees in an urban forest setting.

#### Garden Design Books and Magazines

Many books and magazine offer useful design tips and information about proper tree selection.

# Young Trees Starting Out Right

Every new tree is planted with the hope that it will grow strong and healthy, providing benefits to the community and environment for many years. Proper care is important throughout a tree's entire life, especially during the first three to five years. The care and attention during those critical early years will give the tree its best chance for reaching maturity and thriving.

Before planting any young tree, you should take into account a number of important factors, each of which is explored within this brochure:

Selection

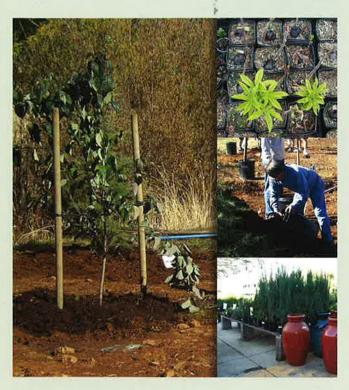
Planting

Pruning

■ Water

Mulch

Monitoring



Other publications in this series include:

Mature Tree Care Choosing the Right Tree Protecting Trees During Construction Native Oaks and Other Native Trees